

IN THE CLAIMS:

Please cancel claims 3, 4, 6, 8-17 and 19-30 without prejudice.

Please amend claims 1, 2, 5 and 7 as follows:

Claim 1 (currently amended) A watercraft steer-by-wire control system, comprising:

~~an~~ a steering input device configured for rotational movement about a moveable axis of the steering input device, the moveable axis extending longitudinally through the steering input device, the steering input device also configured for movement in a range defined by a first position and a second position;

~~at least one transducer in operable communication with the input device;~~

a rudder control system in operable communication with the steering input device, wherein rotational movement of the steering input device about the moveable axis induces the rudder control system to move a rudder ~~and configured to control a rudder of a watercraft;~~ and

at least one transducer configured to detect translational movement of the steering input device in the range, wherein the transducer sends a signal to a bow thruster control system in order to control a bow thruster based on the movement of the steering input device in the range.

~~a bow thruster control system in operable communication with the at least one transducer and configured to control a bow thruster of the watercraft.~~

Claim 2 (currently amended) The watercraft steer-by-wire control system of claim 1, wherein the steering input device is a hand wheelshaft.

Claims 3 and 4 (canceled).

Claim 5 (currently amended) The watercraft steer-by-wire control system of claim ~~3~~ 1, wherein the steering input device is spring biased into a central position and the movement of the range second degree of freedom is substantially perpendicular to the central position ~~a reciprocating degree of freedom and is configured to control the bow thrusting of the watercraft.~~

Claim 6 (canceled).

Claim 7 (currently amended) The watercraft steer-by-wire control system of claim 1, wherein the movement of the steering input device in the range ~~input device is configured to put~~ induces the bow thruster to operate into one of two modes, a yaw mode and a translation mode.

Claims 8-17 (canceled).

Claim 18 (original) The watercraft steer-by-wire control system of claim 1, wherein the bow thruster is configured to operate at a constant speed.

Claims 19-30 (canceled).

Please add new claims 31- 36 as follows:

Claim 31 (new) The watercraft steer-by-wire control system of claim 1, wherein the steering input device is rotatably received within a first bearing and a second bearing, the first bearing being received within an actuator housing and the second bearing being configured to allow angular misalignment of the steering input device.

Claim 32 (new) The watercraft steer-by-wire control system of claim 31, further comprising a pair of thrust shoes movably received within the actuator housing and configured to be in operable communication with a periphery of the first bearing, the pair of thrust shoes being biased against the periphery of the bearing by a pair of springs, wherein the at least one transducer comprises a pair of transducers, each of one of the pair of transducers being configured to detect translational movement of the steering input device in the range, wherein the pair of transducers each send a signal to the bow thruster control system in order to control the bow thruster when the steering input device moves in the range, wherein one of the pair of transducers is configured to detect translational movement of one of the pair of thrust shoes and the other one of the pair of transducers being configured to detect translational movement of the other one of the pair of thrust shoes.

Claim 33 (new) The watercraft steer-by-wire control system of claim 1, wherein the steering input device is rotatably received within a first bearing and a second bearing, the first bearing being movably received within an actuator housing for movement in the range, wherein the range is substantially parallel to an axis of rotation of the steering input device.

Claim 34 (new) The watercraft steer-by-wire control system of claim 33, wherein the at least one transducer is a 3-position switch.

Claim 35 (new) A steer-by-wire control system for a watercraft, the watercraft having a rudder and a bow thruster, comprising:

- a steering input device having a shaft configured for rotational movement about a longitudinal axis of the shaft, the shaft having a first position where the longitudinal axis is disposed on a first axis, the shaft having a second position where at least a portion of the longitudinal axis is disposed a first distance from the first axis;

- a rudder control system operably communicating with the steering input device, the rudder control system configured to move the rudder in response to rotational movement of the shaft about the longitudinal axis;

- a transducer configured to detect a translational movement of the shaft from the first position to the second position; and

- a bow thruster control system operably communicating with the transducer, the bow thruster control system controlling operation of the bow thruster based on the movement of the shaft from the first position to the second position.

Claim 36 (new) A method for maneuvering a watercraft utilizing a steer-by-wire control system, the watercraft having a rudder and a bow thruster, the steer-by wire control system having a steering input device with a shaft configured for rotational movement about a longitudinal axis of the shaft, the shaft having a first position where the longitudinal axis is disposed on a first axis, the shaft having a second position where at least a portion of the longitudinal axis is disposed a first distance from the first axis, the method comprising:

moving the shaft from the first position to the second position;
controlling a bow thruster based on movement of the shaft between the
first and the second positions;
rotating the shaft a first rotational distance about the longitudinal axis of
the shaft; and
controlling an operational position of the rudder based on the first
rotational distance.